

**IN THE CLAIMS**

1) Please cancel Claims 1-20.

2) Please add new Claims 21-46 as follows:

21. (New) For use in a wireless network capable of communicating with a plurality of mobile stations in a coverage area of said wireless network, a base station comprising:

a radio frequency (RF) receiver unit comprising an RF receive path capable of being coupled to an antenna that receives an RF signal; and

an injection circuit for measuring RF signals in said RF receive path comprising:

a circulator coupled to said antenna and coupled to said RF receive path;

an injection source coupled to said circulator, wherein said injection source is capable of injecting a test RF signal into said circulator; and

level detector circuitry associated with said RF receive path capable of measuring a signal strength of an RF signal in said RF receive path.

22. (New) The base station as set forth in Claim 21 wherein said RF receive path further comprises an amplifier coupled to said level detector circuitry, said level detector circuitry capable of measuring a received signal strength indicator of the RF signal in said RF receive path.

23. (New) The base station as set forth in Claim 21 wherein said RF receive path further comprises an amplifier coupled to said level detector circuitry and automatic gain control circuitry coupled to said level detector circuitry, said automatic gain control circuitry capable of controlling the gain of the RF signal in said RF receive path.

24. (New) The base station as set forth in Claim 21 further comprising a duplexer coupled between said antenna and said circulator.

25. (New) The base station as set forth in Claim 21 further comprising a directional coupler coupled to said circulator and to said RF receive path.

26. (New) The base station as set forth in Claim 25 wherein said injection source is coupled to said directional coupler, and wherein said injection source is capable of injecting a test RF signal into said directional coupler.

27. (New) The base station as set forth in Claim 26 further comprising a switch coupled to said circulator and coupled to said directional coupler for selectively enabling and disabling the transfer of test RF signals from said injection source to said circulator and from said injection source to said directional coupler.

28. (New) The base station as set forth in Claim 27 further comprising an impedance measurement controller coupled to said switch, said impedance measurement controller capable of causing said switch to selectively enable and disable the transfer of test RF signals from said injection source to said circulator and from said injection source to said directional coupler.

29. (New) The base station as set forth in Claim 27 wherein said RF receive path further comprises an amplifier coupled to said level detector circuitry, said level detector circuitry capable of measuring a received signal strength indicator of the RF signal in said RF receive path.

30. (New) The base station as set forth in Claim 27 wherein said RF receive path further comprises an amplifier coupled to said level detector circuitry and automatic gain control circuitry coupled to said level detector circuitry, said automatic gain control circuitry capable of controlling the gain of the RF signal in said RF receive path.

31. (New) A wireless network comprising a plurality of base stations capable of communicating with a plurality of mobile stations in a coverage area of said wireless network, at least one of said plurality of base stations comprising:

a radio frequency (RF) receiver unit comprising an RF receive path capable of being coupled to an antenna that receives an RF signal; and

an injection circuit for measuring RF signals in said RF receive path comprising:

a circulator coupled to said antenna and coupled to said RF receive path;  
an injection source coupled to said circulator, wherein said injection source is capable of injecting a test RF signal into said circulator; and  
level detector circuitry associated with said RF receive path capable of measuring a signal strength of an RF signal in said RF receive path.

32. (New) The wireless network as set forth in Claim 31 wherein said RF receive path further comprises an amplifier coupled to said level detector circuitry, said level detector circuitry capable of measuring a received signal strength indicator of the RF signal in said RF receive path.

33. (New) The wireless network as set forth in Claim 31 wherein said RF receive path further comprises an amplifier coupled to said level detector circuitry and automatic gain control circuitry coupled to said level detector circuitry, said automatic gain control circuitry capable of controlling the gain of the RF signal in said RF receive path.

34. (New) The wireless network as set forth in Claim 31 further comprising a duplexer coupled between said antenna and said circulator.

35. (New) The wireless network as set forth in Claim 31 further comprising a directional coupler coupled to said circulator and to said RF receive path.

36. (New) The wireless network as set forth in Claim 35 wherein said injection source is coupled to said directional coupler, and wherein said injection source is capable of injecting a test RF signal into said directional coupler.

37. (New) The wireless network as set forth in Claim 36 further comprising a switch coupled to said circulator and coupled to said directional coupler for selectively enabling and disabling the transfer of test RF signals from said injection source to said circulator and from said injection source to said directional coupler.

38. (New) The wireless network as set forth in Claim 37 further comprising an impedance measurement controller coupled to said switch, said impedance measurement controller capable of causing said switch to selectively enable and disable the transfer of test RF signals from said injection source to said circulator and from said injection source to said directional coupler.

39. (New) The wireless network as set forth in Claim 37 wherein said RF receive path further comprises an amplifier coupled to said level detector circuitry, said level detector circuitry capable of measuring a received signal strength indicator of the RF signal in said RF receive path.

40. (New) The wireless network as set forth in Claim 37 wherein said RF receive path further comprises an amplifier coupled to said level detector circuitry and automatic gain control

circuitry coupled to said level detector circuitry, said automatic gain control circuitry capable of controlling the gain of the RF signal in said RF receive path.

41. (New) For use in a wireless network capable of communicating with a plurality of mobile stations in a coverage area of said wireless network, a base station comprising:

a radio frequency (RF) receiver unit comprising an RF receive path capable of being coupled to an antenna that receives an RF signal;

an injection circuit for measuring RF signals in said RF receive path comprising:

a circulator coupled to said antenna and coupled to said RF receive path;

an injection source coupled to said circulator, wherein said injection source is capable of injecting a test RF signal into said circulator; and

level detector circuitry associated with said RF receive path capable of measuring a signal strength of an RF signal in said RF receive path;

a directional coupler coupled to said circulator and to said RF receive path, wherein said injection source is coupled to said directional coupler, and wherein said injection source is capable of injecting a test RF signal into said directional coupler;

a switch coupled to said circulator and coupled to said directional coupler for selectively enabling and disabling the transfer of test RF signals from said injection source to said circulator and from said injection source to said directional coupler; and

an impedance measurement controller coupled to said switch, said impedance measurement

controller capable of causing said switch to selectively enable and disable the transfer of test RF signals from said injection source to said circulator and from said injection source to said directional coupler.

42. (New) The base station as set forth in Claim 41 wherein said RF receive path further comprises an amplifier coupled to said level detector circuitry, said level detector circuitry capable of measuring a received signal strength indicator of the RF signal in said RF receive path.

43. (New) The base station as set forth in Claim 41 wherein said RF receive path further comprises an amplifier coupled to said level detector circuitry and automatic gain control circuitry coupled to said level detector circuitry, said automatic gain control circuitry capable of controlling the gain of the RF signal in said RF receive path.

44. (New) A wireless network comprising a plurality of base stations capable of communicating with a plurality of mobile stations in a coverage area of said wireless network, at least one of said plurality of base stations comprising:

a radio frequency (RF) receiver unit comprising an RF receive path capable of being coupled to an antenna that receives an RF signal;

an injection circuit for measuring RF signals in said RF receive path comprising:

a circulator coupled to said antenna and coupled to said RF receive path;

an injection source coupled to said circulator, wherein said injection source is capable of injecting a test RF signal into said circulator; and

level detector circuitry associated with said RF receive path capable of measuring a signal strength of an RF signal in said RF receive path;

a directional coupler coupled to said circulator and to said RF receive path, wherein said injection source is coupled to said directional coupler, and wherein said injection source is capable of injecting a test RF signal into said directional coupler;

a switch coupled to said circulator and coupled to said directional coupler for selectively enabling and disabling the transfer of test RF signals from said injection source to said circulator and from said injection source to said directional coupler; and

an impedance measurement controller coupled to said switch, said impedance measurement controller capable of causing said switch to selectively enable and disable the transfer of test RF signals from said injection source to said circulator and from said injection source to said directional coupler.

45. (New) The wireless network as set forth in Claim 44 wherein said RF receive path further comprises an amplifier coupled to said level detector circuitry, said level detector circuitry capable of measuring a received signal strength indicator of the RF signal in said RF receive path.



46. (New) The wireless network as set forth in Claim 44 wherein said RF receive path further comprises an amplifier coupled to said level detector circuitry and automatic gain control circuitry coupled to said level detector circuitry, said automatic gain control circuitry capable of controlling the gain of the RF signal in said RF receive path.